

The Institute of Computer Engineering (ZITI) at Heidelberg University invites applications for a tenured

Full Professorship (W3) in Computer Architecture

at the Faculty of Mathematics and Computer Science. This is a W3 position for experienced scientists, however, young scientists with a strong track-record after the doctorate are also encouraged to apply. They will obtain a **tenure-track professorship (W1)** which converts into the W3 professorship after a positive evaluation. The tenure-track professorship lasts up to six years.. The exact tenure-track regulations at Heidelberg University are available at: <http://www.uni-heidelberg.de/tenure-track>.

This professorship belongs to the core competence **Innovative Computing** at ZITI. This focus comprises the development and programming of specialized computer hardware (analogue and digital), firmware and hardware-efficient software for the solution of demanding data acquisition and computing problems.

With regard to the foreseeable end of Moore's Law, innovative approaches are required for further performance enhancement in applications. To accomplish this, hardware, system and network as well as software and algorithms must interact efficiently. The professorship in Computer Architecture is expected to collaboratively tackle these challenges within the core competence of Innovative Computing. Therefore, we are searching for a scientist with a proven research record in the area of computer architecture, areas of specialization might be

- digital design with a proven experience in CMOS technology,
- new memory technologies,
- Open Hardware, based for instance on RISC-V or EPI,
- design of interfaces, data transfer and communication with novel computing technologies.

Additional ties within ZITI can be established with the competence *Microelectronics or Robotics, Biomechanics & Medical Technology*. Further collaboration opportunities at Heidelberg University are offered by the European Institute for Neuromorphic Computing (EINC), the Interdisciplinary Center for Scientific Computing (IWR), the Center for Advanced Materials (CAM) and other compute-intensive applications and simulations in the natural sciences.

In teaching, contributions to the Master program *Computer Engineering* as well as the Bachelor program *Applied Computer Science* are expected, in particular the foundations and advanced topics of computer architecture.

Prerequisites for the application are a university degree and a doctorate in a related scientific field. For the direct application to the W3 position additionally a Habilitation, a successfully evaluated junior professorship or equivalent qualification is required (Article 47, paragraph 2 of the Higher Education Law of the State of Baden-Württemberg). Candidates for the tenure-track professorship (W1) should generally not have spent more than six years of employment as a doctoral and postdoctoral researcher (Article 51 of the Higher Education Law of the State of Baden-Württemberg).

Heidelberg University seeks to achieve a higher proportion of women in areas where they have not been adequately represented so far. Women with the required qualification are particularly encouraged to apply.

Preference will be given to disabled applicants with equal qualifications for the position. Information on the collection of personal data in accordance with Art. 13 DS-GVO can be found on our homepage at https://www.uni-heidelberg.de/datenschutz_personal.

Applications with the usual documents (curriculum vitae, list of publications, research and teaching statements) should be submitted in English exclusively electronically as a single PDF-document until

31.10.2020 addressed to: Dekan der Fakultät für Mathematik und Informatik, Universität Heidelberg,
Im Neuenheimer Feld 205, Mathematikon, D-69120 Heidelberg, Germany (email:
stellen@mathinf.uni-heidelberg.de).